at least one respective P-type source region formed in each of said body regions in said upper surface of said substrate and defining a respective channel region in said upper surface in said N-type body region;

a gate electrode disposed atop and insulated from said channel region and operable to invert said channel region in response to the application of a suitable gate voltage to said gate electrode; and

a source electrode disposed atop said upper surface and connected to said at least one P-type source region;

said gate electrode being comprised of P-type polysilicon.

4. (Amended) The MOS gated device of claim 1 wherein each of said N-type channel regions has a doping concentration corresponding to that of an approximately 100 KeV phosphorus implant at a dose of about 5.5×10^{13} atoms/cm^2.

5. (Amended) The MOS gated device of claim 1 wherein each of said N-type channel regions has a doping concentration corresponding to that of an approximately 100 KeV phosphorus implant at a dose of about 8.0×10^{13} atoms/cm^2.

7. (Amended) The MOS gated device of claim 1 wherein at least one of said N-type body regions includes a portion adjacent to said upper surface that is more heavily doped than another portion of said N-type body regions that is adjacent to a lower boundary between said N-type body region and said substrate.

13. (Amended) The MOS gated device of claim 1 wherein said gate electrode has a doping concentration corresponding to that of an approximately 50 KeV boron implant of about 5×10^{15} atoms/cm^2.